

ABSTRACT

A drive assembly for a supercharger for an internal combustion engine provides a continuously variable drive ratio between the engine and supercharger to provide a substantially, constant drive speed to the supercharger, thereby optimizing performance. The continuously variable drive may function in increments as well as allow the supercharger to free-wheel. The drive assembly includes a planetary gear drive assembly and a continuously variable hydrostatic transmission having a rotating, variably coupled master and slave pump and motor which, by adjusting its drive ratio, adjusts the ratio of the planetary gear assembly and thus the drive ratio between the engine and the supercharger.